

## QA 22 - Jejunostomy Feedings

### QUESTION:

A 10kg, 11 month old with a corrected age of 9 ½ months with a seizure disorder and at high-risk for aspiration is currently receiving enteral feedings of 27 kcal/oz Enfamil with Fe continuously via jejunostomy tube at 50cc/hr.

Mom would like to give feedings during the day only. What is the maximum rate of feeding via jejunostomy? When does the bowel quit being able to absorb and dumping occur?

Mom does not want to transition to a pediatric formula but instead use pureed foods. We had discussed Compleat Pediatric but she does not like the ingredients. What are some guidelines I could give mom so that all needs are being met and the tube doesn't get clogged?

### ANSWER:

Jejunostomy feedings must be continuous because there is no reservoir for boluses.<sup>1-3</sup> Feeding rate should be advanced slowly. There is no absolute maximum feeding rate. If a child has increased stool output, or diarrhea, he/she is probably not absorbing feedings well, and rate should be decreased back to that previously tolerated. It would be very difficult to meet 100% of needs with daytime continuous drip jejunal feeds only.

It will be very difficult to meet nutrient needs with jejunal feedings without using a commercial formula. A homemade, blenderized formula may be nutritionally adequate, but it is likely to be hypertonic (not well tolerated via j-tube) or low energy density (requiring more volume than tolerated to meet needs), and may contain particles of food which could easily clog a small j-tube. One could not advocate using a homemade blenderized formula via jejunostomy. There may need to be further discussion and explanation regarding why a commercial pediatric enteral formula is in her child's best interests.

Perhaps this child could be fed into the stomach. There are studies which suggest that risk of aspiration is not actually decreased with jejunal feeds; risk may actually be increased because of increased gastric secretions with jejunal feeds. Some authors suggest that a fundoplication to prevent reflux and aspiration is more appropriate than jejunal feeds for a person with high aspiration risk.<sup>1,2</sup> Continuous feeds would more than likely still be necessary for a child who has reflux or aspirates, even if she could be fed into the stomach. However, gastrostomy tubes are larger bore than jejunostomy tubes, and there would be less risk of clogging with a homemade formula. Regardless of route of feeding, if a homemade formula is used, one must make sure it is nutritionally adequate for the child, and not excessive in any one nutrient (e.g., protein).

### References:

- 1) Guenter, Jones, Sweed and Ericson, "Delivery Systems and Administration of Enteral Nutrition" Ch. 14 in Clinical Nutrition, Enteral and Tube Feeding 3<sup>rd</sup> Ed, Rombeau and Rolandelli, WB Saunders Co. Philadelphia 1997

pp 254-255.

- 2) Baker, Baker and Davis: Pediatric enteral Nutrition, Chapman & Hall, 1994 pp162-163.
- 3) The American Dietetic Association: Pediatric Manual of Clinical Dietetics, Pediatric Enteral Nutrition Support, pp491-495, 1997.